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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/460,951	12/14/1999	CARLINO PANZERA	173P023	3152
96448	7590	12/17/2012		
Ivoclar Vivadent Inc. 175 Pineview Drive Amherst, NY 14228			EXAMINER HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1741	
			NOTIFICATION DATE	DELIVERY MODE
			12/17/2012	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

09/460,951

**Applicant(s)**

PANZERA ET AL.

**Examiner**

JOHN HOFFMANN

**Art Unit**

1741

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 5) ☒ Claim(s) 5 and 8-12 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 5 and 8-12 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/20/2012

- 3) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 4) ☐ Other: \_\_\_\_

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 2/20/2012 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "the fusing occurs at a temperature in the range" of claim 5.

From MPEP 2111.01

(Ordinary, simple English words whose meaning is clear and unquestionable, absent any indication that their use in a particular context changes their meaning, are construed to mean exactly what they say. Thus, "heating the resulting batter-coated dough to a temperature in the range of about 400oF to 850oF" required heating the dough, rather than the air inside an oven, to the specified temperature.)

Examiner notes that a step (e.g. fusing) is not matter which can have a temperature. Clearly it is some matter (gas, solid, liquid) which has the temperature. However, it is unclear what matter has the claimed temperature. A potential competitor would not be able to determine whether they could avoid infringement by using a furnace set at 920 C would avoid infringement because the temperature is outside the 750-850 C range – even if the material within the furnace never exceeded the 750-850 range. Examiner cooks pizza at 450 C - although the pizza does not obtain this temperature.

Most noteworthy: Weinstein, page 2, second to last paragraph which teach using an oven at a half hour at 1093 C, or a few minutes at 1177 C. It is reasonable to assume that for the second schedule, the article never obtained a temperature of 1177 C, there might have not been enough time to equalize. Thus it is conceivable that one could use 920 C, and the ceramic material remains within the 750-850 range: in such a situation it is unclear whether such infringes or not.

Furthermore, with the quick 1177 C firing, it would seem the temperature is constantly changing. The fusing does not occur "at" a single temperature. A potential competitor could not reasonably determine whether they could avoid infringement by fusing at a range of temperatures rather than at a single temperature.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinstein DE 1441336 in view of Chemical Abstracts 120 (M.Y. Shareef et al).

See how the references were applied in the 11/29/2005 Examiner's Answer and affirmed by the Board 7/1/2010.

Claim 5 is substantially the same as prior claim 1, but claim 5 has a further limitation that the fusing occurs in a 750-850C range. Weinstein does not disclose what temperature is used. Weinstein discloses using high (page 5, line 7), medium (page 8, line 3) and low (page 11, line 2) melting point ceramic materials. Thus it is clear that temperature is a result effective variable. It would have been obvious to perform routine experimentation to determine the optimal temperature for the firing step.

Weinstein's example 1 (page 5) has a melting point of 1150 C. At the second-to-last paragraph of page 12 of Weinstein, a firing temperature of 1093 C is disclosed. (i.e. 57 C less than the melting temperature. The example 6 (page 11) low-melting point material (which is the basis for the rejection) has a melting temperature of 900 C. A firing temperature of 57 degrees less is 843 C, which is within the claim range.

Furthermore, it is well understood that ceramics can be fired for a long time a lower temperature or a shorter time at a higher temperature. The second-to-last paragraph of page 12 of Weinstein is evidence of this.

Still further Weinstein (page 3, 6th paragraph) discloses some metals oxidize at temperatures around 800 C. It would have been obvious to heat to temperature less than 800 whenever using frameworks that oxidize at 800 C.

Examiner also takes Official Notice that time/temperature trade-offs are well known. Higher temperatures require more energy. Time is money (i.e. longer treatments are not desirable). Furnaces that use higher temperature cost more and/or have a shorter lifetime.

Thus it is also a matter of design choice, the capabilities of the furnace used as well as the metals as to the optimal temperature to use.

### ***Response to Arguments***

Applicant's arguments filed 2/20/2012 have been fully considered but they are not persuasive.

Applicant points to page 117 of Shareef to argue that the combination is not proper. Examiner notes that Shareef only has one page. The rejection is based only on an abstract. The article which was abstracted is not the basis for the rejection. Nor does it appear to be of record.

As to the assertion that Shareef's distribution would not work because the evidence of Phillips discloses that when "particles all were the same size, the density of packing would not be nearly as good": this is not convincing for three reasons. 1) As admitted by applicant, Shareef does have a distribution – thus they are not all the same size. 2) Phillips discloses such is 'not nearly as good' – this does not indicate that the

packing is unworkable, poor, or even marginal. 3) Even if Phillips discloses a problem, Phillips also discloses the solution: "a particular size distribution to produce the most dense packing".

Even if it is not proper to rely on Phillips teaching, it seems to be a matter of common sense. If one of ordinary skill (as applicant asserts) understands that having a uniform particle size causes a problem, then it is a simple matter of not using uniform particle size.

In response to applicant's argument that one would not use Shareef's milling technique, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In other words: the rejection was not based on using Shareef's particular method for milling powder or using Shareef's distribution.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., glass powder having coarser particles than the particles of the leucite-glass) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HOFFMANN whose telephone number is (571)272-1191. The examiner can normally be reached on Monday through Thursday, typically 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Daniels can be reached on 571-272-2450. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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